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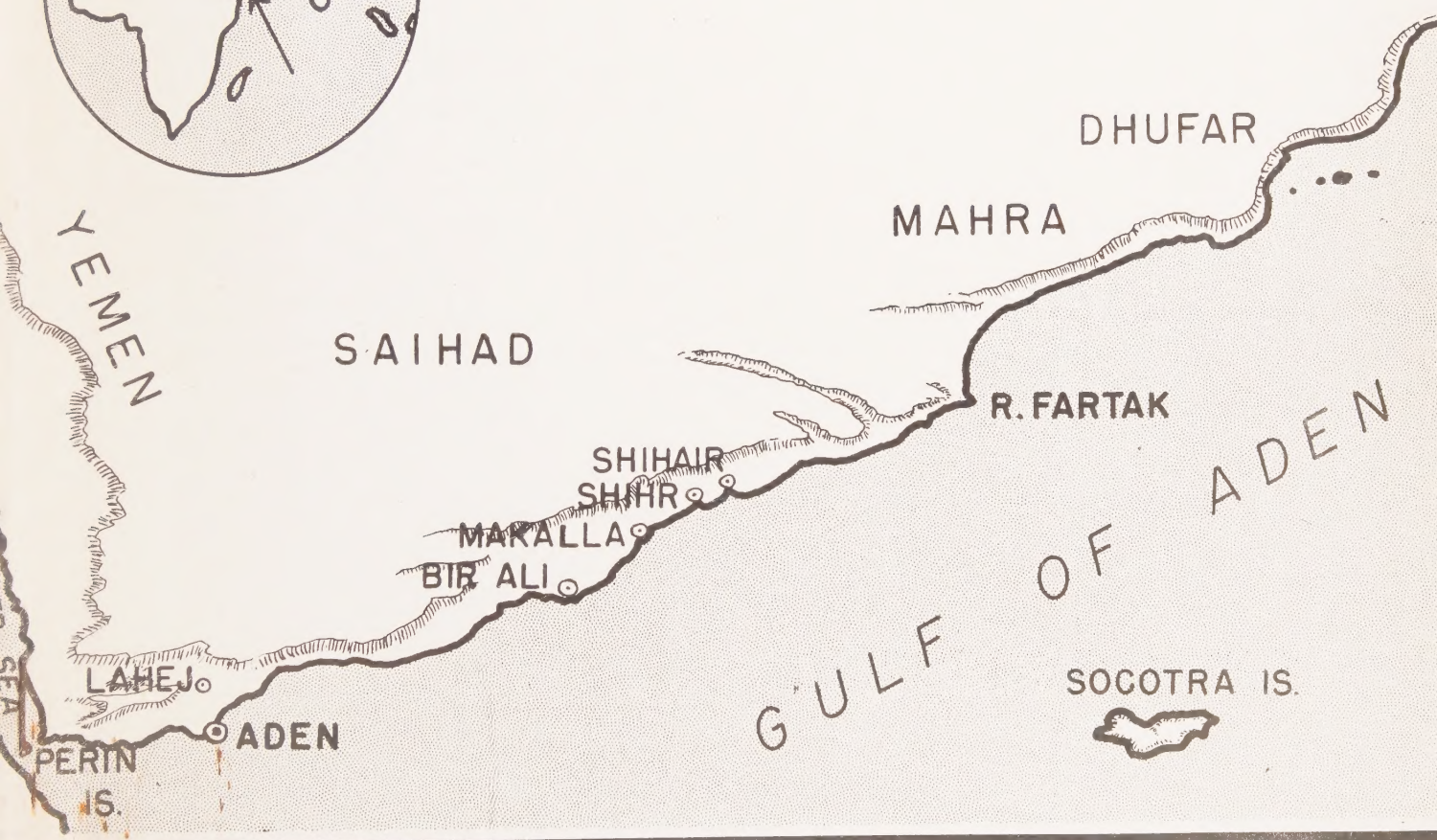

FISHERY LEAFLET 328
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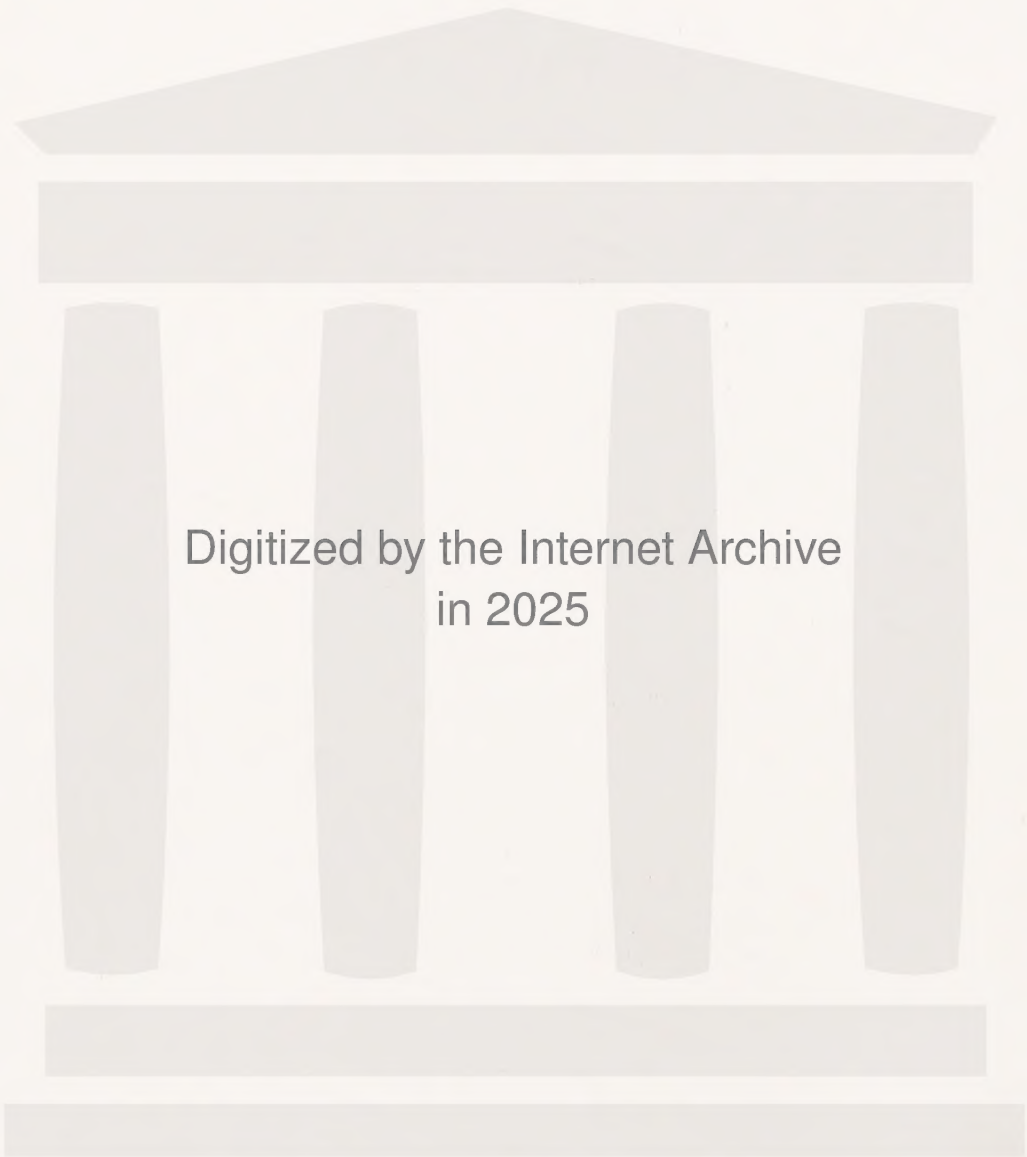
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Fishery Leaflet 328

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FISHING INDUSTRY OF THE GULF OF ADEN (ARABIA)

By Robert E. Ferris[1/]

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Background of the Industry

For many centuries along the southern coast of Arabia, whose shores are washed by the waters of the Gulf of Aden and the Indian Ocean, fishing has been a casual industry, one whose production methods are most primitive, but whose potentialities are believed great. There are none of the intense production methods which characterize this industry in the United States or the Scandinavian countries--powered vessels, packing houses, fish reduction plants--but rather, primarily, there is seen being utilized the primitive canoe, some very small dhows, and hand equipment. Actual production figures have never been compiled, but it is known that while most of the fish caught is used for local consumption, many shipments of dried and salted fish are sent irregularly into the hinterlands, to Ceylon and India, and to the British Somaliland coast.

Location of Fishing Grounds

There is no specific area where fish are most abundant, as far as the Aden Government authorities are able to determine--this seeming to remain the secret of the individual fisherman. The continental shelf is quite narrow, of not more than five or six miles extent into the Gulf; but along this shelf, from the Island of Perim, in the Straits of Babel-Mandeb, to the Mahra Coast, approximately five hundred miles

1/ American Vice Consul, American Consulate, Aden, Arabia, June 7, 1948. (Report No. 4)

east of Aden, is done most of the fishing for sardines, rockfish, snappers, and groupers. Shark, and export fish primarily, is most often taken on the Mahra Coast, at Socotra, and on the Somaliland Coast.

Unfortunately, Southern Arabia does not have good harbors, nor is there very much fresh water. Thus the technical difficulties would be quite great should major expansion of this industry be desired--which appears to be true at this time. The further east along the Southern Coast one travels the more fish he finds. According to surveys made by the Fisheries Advisor to the British Secretary of State, the best fishing grounds seem to be off the harbors of Bir Ali, Mukalla, Shuqra, Al Hisi, and the Mahra Coast.

Fishermen and Employment

Because there is no organized fishing industry, it is virtually impossible to determine the number of fishermen plying their trade. The wages they receive depend upon the amount of fish they catch and personally market, for most businesses are small, individually owned and operated enterprises, operating upon the mere subsistence level. They may labor from sun-up until sun-down, and their reward is predicated upon their individual abilities and luck. There are, however, some small dhows, which will carry a crew of eight to ten men, but there have been no tabulations compiled in this area of wages, numbers of workers, or working conditions, for, with the exceptions of the few shipments to India and Ceylon, this is primitive enterprise.

Fishing Vessels

The fringe of the coastal waters are mainly exploited from native one-to-five man canoes, of twelve to twenty-five feet in length. Some of the larger canoes may reach thirty-five feet overall, with a crew of eight or nine men. Next in size, after the larger, planked canoe, is the small dhow, which may have a complement of twelve fishermen, but these are relatively few in number. There are no native-owned powered fishing craft. Recently the British Government has based in Aden a small power craft capable of carrying ice in its forward hatch, for experimental and research projects under the direction of the recently appointed Aden Government Fisheries Officer. But at the present time there are insufficient harbor facilities, such as docking, loading, and icing services, to have warranted power and refrigerated craft along the southern Arabian coast.

Species of Fish

Little is known about the many different classes of fish caught just off-shore, and the local names of one class of fish may be different in the several areas. There appear to be at least two species of sardine; the kingfish (believed to be the scomberomouris); and, besides several species of shark, species of mackerel, snappers, rockfish, and three species of tuna--one identified as the bluefin. The dominant specie of sardine seems to be the dussumeria; the small mackerel is probably scomber microlepidotus; and the snapper has been identified as epiniphelus tauvina.

During the winter season is found the best fishing, and it is then that the sardines become very numerous along the coast east of Aden. At the height of the season sardines are so plentiful in the eastern coastal villages that they can be purchased at thirty for a penny. Tuna, much larger, may be purchased at the same time at an extremely low price. At Al Hisi about ninety fishermen within a seven-months period produced about a million pounds, or within an eight-month season about an average of five and one-half tons per man. At Shihr--which exports dried sardines, sardine oil, and wet salted kingfish--were caught during this season by some 3,600 men a weight equivalent to about 8,000 tons of wet sardines, and 300 tons of wet kingfish, or about 2.3 tons per man for export. It is presumed that a like quantity could have been sent up-country and consumed locally. According to figures obtained from local sources in December, 1946, £20,000 worth of sardines were dried in Aden. Two hundred sixty miles east of Aden are found abundant sardines, suitable for the production of sardine oil and the dried article. The sardines are spread out on the sand, allowed to dry thoroughly in but a few days, and then are exported, mainly as fodder for cattle, and as fertilizer. The sardine season begins at the end of the southwest monsoon in September, and between October and the end of November they are at their fattest. Throughout the rest of the year, from January on, they become gradually scarcer. The larger fish, tuna, kingfish, etc., are gutted, split, scored, and well rubbed with salt. These fish are as tasty as any on the world market. Aden warehouses regularly held in stock well over one thousand tons of this dried sardine product.

Tunny, or tuna, between the months of September to January are at their best, the greatest quantity being caught in October to December. In October to December they are caught in depths of sixty to seventy fathoms, while in January to June they are taken in or over much greater depths. The kingfish, caught in shallower waters than the tunny, is very highly prized. They may be caught by hook or by a keddle-net. There is no special season for shark.

Fishing Gear Used

Of all the methods used to catch fish in the Gulf of Aden the commonest is the hook and line. Used from boats mainly, cast nets are the nets most frequently employed. Waders may work from the beach or from the rocks, casting nets varying in shapes and sizes. The sardine boats cast a larger net of seventy-two feet in circumference, with a mesh of one-half inch bar. The smallest gill net has a mesh of about 120 rows to the yard; medium-sized nets have about eighty-four rows to the yard; and a large sardine net has about fifty-six rows to the yard.

At Aden Colony and Shuqra beach seines of about ninety yards in length, of mesh of one-inch bar, about fifteen feet deep are used. The actual net has a long wing down both sides, about thirty yards long, and made of twisted palm leaf strips. No floats are needed.

The sardine seine is a huge thing. The actual net, forty feet wide by one hundred sixty feet long, rectangular in shape, is made of

cotton and woven into a fine mesh ninety rows to the yard. The head and foot of the forty-foot openings are fastened to headlines and footropes by very long staplings of twisted palm leaf strip thirty inches long. A single heavy stone weights the middle of the footrope. There are no floats on the headline, but instead a strong rope becket is held by a canoe, which acts as the float. The netting itself is the bunt or pocket of the seine. Twisted palm-leaf strips form the wings in the shape of an open mesh-work with meshes of twelve-inch bar and fourteen rows deep--or seven full meshes deep. To each wing of about 400 yards is attached hauling ropes.

The use of this gear necessitates fair weather, for it is of great weight and bulk and must be jointly operated from boat and shore. Thirty to fifty men work the seine, and at times the catch can be immense.

Other gear in popular use are: wicker-work traps, with non-return valve-used for small fish; the shark spear, twelve feet long, detachable barbed point; common cotton cord and simple hooks--most of which, incidentally, are imported from Norway.

Often, late at nite and in the early morning hours, one may see camel trains slowly plodding into Aden Colony, laden with the fish caught near the eastern coastal villages and to be sold in Aden markets that day. The catches are either delivered to a few merchants to be 'dried,' or are sold openly in native market stalls.

Aden Shell Fishing Company

A new division of the fishing industry, that of processing shells into rough button forms, has been developed in Aden, but it is no market for local fishermen, for the shells are mainly imported from Australia and some from the Red Sea area. At the present writing, the Aden Shell Fishing Company occupies a large, rented building, containing within it storage rooms for the rough-finished article, large cement tanks in which the shells are soaked, processing rooms, and a machine shop where the processing machines are both made and repaired. Only the rough button form has been produced thus far, and after cutting the forms are graded and sold to the "Dominion Manufacturing Company", Larnaca, Cyprus, where they are finished.

The spiral, cone-shaped trocas is the shell used at present, from which forty to fifty button forms are cut; but experiments are being made with others, mainly the green snail from the East Indies. When the shells first are brought in they are graded according to size, sorted, and soaked in water for seven days in order to extract all the heat from them prior to cutting. There are at present seventy-five cutting machines, some made in the company's own shops, some imported from Asmara, Eritrea--where buttons from Red Sea shells are being cut and finished. Under full operation some 500--600 people are employed--cutters, sorters, feeders, coolies, etc.--but operation is irregular.

After cutting, the button forms are shipped out in bags of about 150 gross each, four bags to a case.

Outlook of the Industry

The British interest in Gulf of Aden fishing may be a means of building export trade, developing self-sufficiency, developing colonies financially, and aiding them in strengthening their insufficient protein diet.

Local merchants believe theres to be a potent industry lying dormant here. Cannery research in the towns of Mukalla and Ash Shihr, has discovered that the fish oil and vitamin yield is of a calibre high enough to profitably merit production. The fishing industry along the southern Arabian coast is still under survey, but soon there should be evidence of what is to be done about the fishing industry in the Gulf of Aden.

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